
Disaster Preparedness

DPO 1100 Nuclear Emergency Team Operations

Potential hazards of nuclear weapons accident to include biological effects of radiation and airborne radioactivity. Basic nuclear physics, radiation principles, contamination control station concepts, nuclear weapon accident response procedures, medical aspects of radiation, and exercises and decontamination procedures using radiological equipment.

DPO 1101 Disaster Control Fundamentals

Organization of disaster control program. Includes planning procedures and publications; emergency preparedness measures; shelter theory and management; recognizing and managing natural disasters, civil disturbances, and dangerous materials; implementing emergency exercises; and procedures in major accident response exercises.

DPO 1102 Disaster Preparedness

Peacetime operations during major accidents and natural disasters to include military aid to civil authorities and application of command and control procedures and protection and recovery action plans.

DPO 1103 Disaster Preparedness Application

Disaster preparedness unit survey program, exercises and evaluations, peacetime operations for major accidents and decontamination procedures, wartime defensive operations for nuclear and chemical attack, shelters, decontamination, and protective equipment and maintenance. Analysis of disaster preparedness programs and decontamination exercises.

DPO 1104 Warfare Defense

Physical properties, physiological effects, and appropriate defense measures concerning nuclear, biological, and chemical environments, and National Preparedness Programs. Command and control operations to include simple fallout plotting, area reconnaissance, contamination control procedures, shelter stocking, and defense planning requirements.

DPO 1105 Nuclear, Biological, Chemical Cell Operations

Familiarization with nuclear, biological, and chemical cell operations. Includes report and warning organization, messages, mapping, chemical hazard prediction, and fallout predictions.

DPO 1350 Disaster Medicine

Medical responsibilities, medical capabilities, and physical and medical effects of peacetime nuclear weapon accidents; physical and medical effects; medical capabilities; and chemical/biological warfare medical defenses.

DPO 1351 Disaster Preparedness

Disaster planning; includes analyzing problems encountered and determining medical role, sociological aspects, and Federal and local roles. Disaster casualty control planning, development of a disaster/emergency medical training program, and evaluation of simulated disaster exercises.

DPO 2100 Disaster Preparedness Programs

Analysis of research and development, protective shelter concepts and procedures, major accident/incident procedures, defense concepts, training and education requirements, reporting procedures, budgeting, and disaster preparedness planning routines.

DPO 2101 Effects of Nuclear Weapons

Analysis of nuclear weapon theories.

DPO 2200 Airbase Operability

Processes and procedures to keep an airbase operable during peacetime/wartime disasters. Includes airbase management, planning, and operational exercises under adverse circumstances.

Data Systems

EDP 1101 Principles of Data Processing

Techniques, functions, and methods of data input to and retrieval from data systems; includes coding data punched cards and operation of remote terminals.

EDP 1104 Principles of COBOL Programming

Program organization, language structure, data organization, reference formats, table-handling techniques, sorting techniques, and identification, environment, data and procedure division structure.

EDP 1106 Principles of Computer Operation

Introduction to basic components and features of computers, flowcharting, programming languages, numbering and coding systems, assembly, applications, and computer security.

EDP 1112 Computer Data Handler

Techniques, principles, functions, and methods of input for data-handler system; includes data punchcard coding and report generation.

EDP 1113 Data-Processing, Inquiry, and Retrieval Systems

Basic functions and characteristics of computer systems; operations performed by computer components from input through output; and procedures for data entry, inquiry, and retrieval. Methods required to construct, input, and retrieve data from computer using format statements.

EDP 1116 Operational Systems Utilities

Characteristics and application of system utilities; includes system security and use of operational publications.

EDP 1117 Personnel Data Systems

Systems fundamentals; data flow; and use of central, local, and optional tables and management output products. Laboratory in interpreting formats, constructing and inputting immediate inquiry messages, and obtaining deferred retrieval products.

EDP 1118 Principles of Computer Systems

Introduction to digital computers and peripheral devices. Includes internal data representation and computer mathematics; basic characteristics of machine, assembler, and high-order level languages; operating system characteristics; computer facility operation; and computer security.

EDP 1122 Software System Design and Program Maintenance

File maintenance systems, time-sharing, program linking and overlay, special software packages, and software systems design.

EDP 1128 Principles of Assembly Language Programming

Introduction to flowcharting, compiling, executing, and debugging programs; includes address modification, macros and pseudo-operation, file manipulation, and generation of a user library.

EDP 1129 Top-Down Structured Programming

Development of support library, top-down documentation, design and implementation, structured walkthroughs, program logic, and coding.

EDP 1130 Introduction to System Software

Large-scale computer system software; includes catalog and file management software, library editor software, utility software, and time-sharing procedures.

EDP 1131 Principles of Maintenance Management Information Systems

Information processing and analysis; includes preparing and inputting data and analyzing output data, file maintenance procedures, system familiarization, subsystems, structures, Air Force online data system, troubleshooting procedures, and processing techniques.

EDP 1132 Computer System Familiarization

Functions of computer systems; includes knowledge of computer security, electronic data processing, forms management, terminology, and organizational alignment.

EDP 1133 Remote Processing Station Computer Systems

Functions, features, characteristics, and operating procedures; includes system instructions for all peripherals and punchcard equipment, modes of processing, data-base management system, character representation, and procedures for interfacing with a data-processing installation.

EDP 1135 Bar-Code Marking and Reading

Use of computerized bar codes for identification of materiel; includes theory of bar coding and operation and maintenance of marking and reading equipment.

EDP 1136 Microcomputer Software Applications

Microcomputer and software application; includes operating system, word-processing, spreadsheet, and data-base management applications.

EDP 1138 Information Management Systems

Introduction to and operation of information management systems and subsystem files. Includes computer and data communication terminology and work station components.

EDP 1201 Communications Computer Operator

Theory/operation of automatic digital network message equipment for receiving/sending messages. Includes message traffic routing and encryption; optical card reader, optical scan unit, nine-track tape, paper tape, and keypunch; and procedures for receipt/distribution of hard copy messages.

EDP 1202 Software Engineering

Principles for developing a software package to maximize software life cycle. Emphasis is on problem solving, algorithm design, and user interface.

EDP 1203 Principles of Data-base Applications

Principles and techniques of data-base design, utilization, and maintenance using commercial software on personal and mainframe computers. Use of SQL, tables, and indexes to create queries and reports.

EDP 1204 Introduction to Logistics Automated Data System

Introduction to standard base supply system with emphasis on operation and maintenance of automated data system. Includes initialization, remote processing, interfacing microcomputers, file structure, time sharing, query language processor retrievals, report generation, production control, and reject management.

EDP 1205 C Programming

Introduction to C-programming language. Interface between C and its environment with some emphasis on UNIX, DOS, and Windows.

EDP 1400 Principles of Computer Programming

Analysis of various types of instruction, explanation and analysis of representative computer languages, performance analysis, and development of programs.

EDP 1701 Principles of Digital Techniques

Digital computer mathematics, Boolean algebra, logic circuits, and truth tables.

EDP 1702 Principles of Computer Mathematics

Decimal, binary, and octal number systems; logic functions; truth tables; adder circuits; Boolean equations; and logic diagram construction.

EDP 1706 Digital Computer Fundamentals

Operating and programming principles; includes computer mathematics, input and output devices, and digital logic.

EDP 1733 Data-Processing Equipment Operation

Theory and operation of memory units; input, output, and display systems; printers; transmitter units; error checking; and synchronization systems.

EDP 1801 CATIS Imagery Interpreter

Fundamentals of imagery interpreter and review and validation functions.

EDP 2109 Data-Processing Systems Management

Real-time processing of messages; includes construction, maintenance, and interpretation of computer tables. Evaluation of computer data and study of mass file conversion products.

EDP 2126 Principles of JOVIAL Programming

Coding conventions, types and uses of constants, assignment and exchange statements, decision-making statements, compound statements, modifiers, indexing) subscripts, strings, arrays, and subroutines.

EDP 2131 Advanced Assembly Language Programming

Advanced techniques; includes address modification, macros and pseudo-operations, file manipulation, and generation of a user library.

EDP 2135 Data-Base Management

Application of data access methods for input/output operations; includes coding, executing, and debugging language programs.

EDP 2136 Data-Base Design

Advanced techniques; includes terminology, design considerations, file structure and handling, and data-base documentation requirements.

EDP 2152 Systems Design

Techniques and concepts of design based on state-of-the-art hardware and software computer systems. Includes security, control, and audit features; construction of decision logic tables; top-down structured programming design; and project development.

EDP 2178 Data Retrieval Systems

Advanced techniques for writing and inputting computer inquiry statements; includes coding and retrieving data to solve given management problems.

EDP 2183 Advanced Computer Networking

Theory of computer-to-computer communications; includes terminology and network configuration principles.

EDP 2184 Advanced Computer Operations

Indepth coverage of computer components and features, flowcharting, programming languages, numbering systems, coding systems, assembly, and computer operation.

EDP 2185 Advanced Computer Systems Analysis and Design

Computer systems development; includes data-processing systems concepts, computer systems development life cycle, systems feasibility studies, state-of-the-art computer technology, computer systems design concepts, top-down structured design, and design documentation.

EDP 2195 Job Control Language

Production of single-step, two-step, and multi-step jobs; includes functions, features, execution, modification, and analysis of in-stream and cataloged procedures.

EDP 2201 Computer System Administrator

Overview of system hardware, software, and operating system. Uses system software, data base, networking, editor, and security software to customize operating environment to meet the needs of using organization.

EDP 2202 Advanced Logistics Automated Data System

Advanced techniques in standard base supply system. Includes distributed communications architecture, transaction processing, data-base concepts, data-base integrity, processing management, microcomputers, programming and debugging techniques, and report generation.

EDP 2203 Fundamentals of Ada Programming

Fundamentals of Ada programming language including Ada types, control structures, subprograms, packages, generics, file input/output, and tasking.

EDP 2204 Ada Programming Structures

Introduction to Ada programming structures using software engineering principles, including variable types (scalars, record, array) and subprograms.

EDP 2205 Advanced Ada Programming

Advanced techniques in Ada designing and coding. Includes subprograms, packages, exception processing, type analyses (private, derived, access), input/output, tasking, and low-level features.

EDP 2206 UNIX Operating System

Introduction to UNIX operating system. Includes file system, shell, standard editor, network services, and shell programming.

EDP 2404 Advanced Data Inquiry and Retrieval

Application of file definition and generation tasks, task-loading routines, data-base recovery, file update tasks, file query function, retrieval tasks, search processor, sort tasks, and output formats.

EDP 2611 Applications Programming

Advanced techniques in developing and maintaining unique software systems using executive control language, transitioning aids, debugging aids, and language processors; includes systems hardware and software concepts.

EDP 2613 Computer Console Operation

Advanced operating techniques in creating, accessing, and manipulating data within a data-base management system using executive control language, transitioning aids, language processors, and data-base functions; includes system hardware and software concepts.

EDP 2614 Data-Base Applications Programming

Advanced techniques in creating, accessing, and manipulating data within a data-base management system using executive control language, transitioning aids, language processors, and data-base functions; includes system hardware and software concepts.

EDP 2616 Data-Base Administration and Maintenance

Advanced techniques of maintaining and administering a data-base management system in an operational environment with emphasis on concepts.

EDP 2619 Computer Systems Security

Procedures for administering/monitoring automatic data-processing security; includes security development, policies, duties and responsibilities, system abuse, and establishment of security training programs.

EDP 2732 Principles of ATLAS Programming

Statement and program structure, preamble statements, procedure statements, and program flow; includes laboratory in programming applications.

EDP 2803 Segment Operation

Advanced computer segment operation; includes system initialization, operational software, and operational evaluation.

EDT 1804 Fundamentals of Speech

Principles of effective speaking. Includes organization and delivery using acceptable platform mannerisms and constructive/effective use of visual aids.

EDT 1808 Development and Management of Training Programs

Application of methods for determining training requirements; includes analyzing training data and directives, administering career development programs, determining job classification, and conducting staff visits to assist in setting up effective training programs.

EDT 1809 Use of Computers in Training

Application of computers in training/instructional programs; includes training files management, instructional system development, and use of computer-assisted instruction principles in classroom environment.

EDT 1811 Computer-Based Instruction Development

Principles of constructing computer-based instruction using system software commands.

EDT 1812 Introduction to Computer-Based Instruction

Principles of computer-based instruction development. Includes design, specific computer language, program analysis, and application of related materials.

EDT 1813 Interactive Videodisc (IVD) Designer

Application of IVD to develop instructional materials; includes design process, specific authoring systems, program analysis, video integration, lesson conventions, flowcharts, storyboards, and scripts. Includes design/development of an IVD lesson.

EDT 2801 Instructional System Development

Systems analysis training requirements; criterion objectives; teaching steps and measurement devices; and planning, developing, validating, conducting, and evaluating instruction.

EDT 2802 Development and Management of Instructional Systems

Concepts and philosophies of training and educational process. Development/management techniques for effective instructional systems and educational programs.

Education and Training

EDT 1101 Training Resource Management

Application of management principles and concepts to satisfy organizational responsibilities for managing budget, facilities, equipment, and personnel resources. Includes comprehension of student management system, short and long-term funding concepts, program objective memorandum, and procedures for identifying and resolving training deficiencies due to nonavailability of resources.

EDT 1102 Objective and Test Development

Theories and principles of learning, interpretation of training proficiency code keys, and correlation of objectives. Includes principles, analysis, administration, and construction of measurement items.

EDT 1501 Instructional Principles and Techniques

Learning process; includes application of communicative skills, instructional methods and aids, developmental approach, and instructional systems development.

EDT 1803 Instructor Fundamentals

Principles of lesson planning, various methods of instruction, use of instructional aids, and construction/administration of evaluations; includes learning theories. (Instruction suited to flight simulator, airborne, field, and conventional classroom environments.)

EDT 2803 Applied Instructional System Development

Practical exercises in development/evaluation of an instructional system. Education/training requirements, objectives and tests, plan validation of instruction, and evaluation of completed instructional systems.

EDT 2806 Basic Counseling

Comprehension of human behavior to include adjustment mechanisms and different considerations in academic/nonacademic counseling. Application of various counseling approaches, use of referral agencies, and documentation and followup.

EDT 2807 Tests and Measurements

Test item construction to include development and correlation of objectives/standards; test item analysis; examination of characteristics of reliability, validity, comprehensiveness, and differentiation; measurement errors; test administration/proctoring; and test critique.

EDT 2809 Supervision of Instruction

Course control documents and instructional system development, management of student academic programs, and measurement/evaluation of student and instructor performance.

EDT 2810 Advanced Technical Instruction

Modern instructional trends and innovations, analysis of problems relating to teaching methodology, and application of video recorders in practice teaching exercises.

EDT 2813 Instructional Methodology

Fundamentals of teaching, emphasizing proficiency in specialized skills, such as technical course writing, tests and measurements, programmed instruction, training supervision, instructional system development, and technical academic counseling. Includes learning process, effective study methods, and audiovisual aids, such as single-concept films and automated teaching systems.

EDT 2814 Practice Teaching

Supervised application of teaching techniques and instructional methodology in regularly scheduled classes.

EDT 2823 Technical Writing

Techniques that enhance skills and knowledge in writing technical training materials; includes review of basic grammar and English composition with practical exercises in researching, organizing, and writing technical materials.

EDT 2824 Instructional Processes

Administration of programmed instruction; includes curriculum analysis, construction of objectives, and course validation and evaluation.

EDT 2834 Staff Development Trainer

Practice in conducting on-the-job training; includes comprehension of learning process, application of evaluation techniques, and comprehension of role of job training.

EDT 2835 Staff Development Manager

Job classification procedures, job proficiency, training records, and on-the-job training programs.

EDT 2838 Resident Course Development

Resident training materials planning/development; includes writing behavioral objectives and criterion-referenced tests and planning, and writing/editing a complete manuscript for an assigned unit of instruction.

EDT 2839 Correspondence Course Development

Preparation of correspondence course materials. Includes writing behavioral objectives; developing review exercises; preparing/using illustrations; using copyrighted material; and researching, planning, and writing correspondence courses.

EDT 2840 In-Flight Instructor Training

In-flight training; includes observing and practicing instructional role under actual flight conditions.

EDT 2842 Training Management Supervision

Dual channel on-the-job training concept, training needs, management of related automated products, accomplishment of a master training plan, individual training records, and training assistance visits.

EDT 2843 Development and Application of Occupational Survey Data

Practice in constructing and administering occupational surveys for instructors and other training personnel. Includes use of occupational measurement centers services and products; development of job inventories; and analysis, validation, processing, and application of data resulting from surveys.

EDT 2845 Developing Course Training Plans

Identification and explanation of various types of training plans. Determination of offices of primary responsibility. Discussion of specific responsibilities within each office of primary responsibility. Description and resolution considerations for problems generally anticipated in training plan development.

EDT 2846 Teaching Practicum

Practice teaching under supervision of an experienced instructor supervisor. Classroom/laboratory instruction, lesson planning, test administration, academic counseling, and preparation and use of audiovisual aids.

EDT 4101 Foundations of Education

Theories and principles relating to enhanced learning. Includes appreciation for self-concept, individual differences and affective domain, creative thinking, observational skills of instructor, student/instructor interaction, and group dynamics.

EDT 4102 Principles and Methods of Teaching

Selection of teaching methods, organization of materials, and preparation of written plans with behavioral objectives. Includes practice in employing the teaching interview, guided discussion, demonstration, performance, and lecture. Emphasizes improvement in communicative skills.

EDT 4103 Principles and Methods of Evaluation

Construction, use, and analysis of evaluation instruments; synthesis of valid decisions based on results of statistical studies; and examination of various evaluation instruments.

Electronic Equipment Operation

EEO 1201 Aircraft Control and Warning Operations I

Manual operating principles at the following positions: plan position indicator, surveillance (plotter, teller, and recorder), and status clerk. Includes duties and functions of each position and proficiency in radarscope and plotting operations.

EEO 1206 Aircraft Control and Warning (AC&W) Operations III

Theory and operation of a combat reporting center, including control and center operator consoles with operational procedures for all positions and an overview of capabilities of the 407L AC&W system.

EEO 1207 Spacecraft Ground Data Systems

Orientation and coverage of responsibilities of ground data satellite control systems; includes ground station data flow, command and control subsystems, altitude control, propulsion, power production, status processing satellite readout, data reduction, simulation, and ground data monitoring operations.

EEO 1208 Semiautomatic Ground Environment Surveillance Operations

Apprenticeship and practical application in data handling for electronic warfare duties as radar input and countermeasures technician; includes a review of typical radar inputs and tracking methods employed in air surveillance and countermeasure operations.

EEO 1212 Combat Reporting Center/Control and Reporting Center Systems

Practical application of search scope alignments and radio operations; includes power-on procedures, plan position indicator alignment, test mode display procedures, determining azimuth and range using azimuth/range readout, various aspects of surveillance management, console switch actions that control automatic data link, site registration, point and strobe insertion, processing of data track, and interpreting fragmentary orders and geographical reference systems.

EEO 1213 Airborne Warning and Control Systems

Basic air surveillance console switch action operations necessary to effectively use computerized, multisensory systems. Includes detecting, identifying, and tracking

surface/airborne objects; manual/automatic transfer of air defense information; basic sensor system employment; and combating electronic warfare.

EEO 1214 Airborne Warning and Control Systems Training Devices

Operation of computerized training devices designed to simulate airborne surveillance console operations, sensors, and scenarios; realistic demonstrations; practice; and evaluation.

EEO 1215 Airborne Warning and Control Systems In-Flight Activities

Application of flight activities designed to develop knowledge/skills used in strategic/tactical intercept operations; includes coordination procedures required to accomplish an early warning intercept mission within worldwide multiservice and Allied air defense operations.

EEO 1216 Radar Operations

Operation of radar displays and techniques of detecting, identifying, and monitoring surface or airborne objects using primary or beacon radar systems. Includes circuit operation, equipment features, antennas, weather effects, and electronic warfare operations.

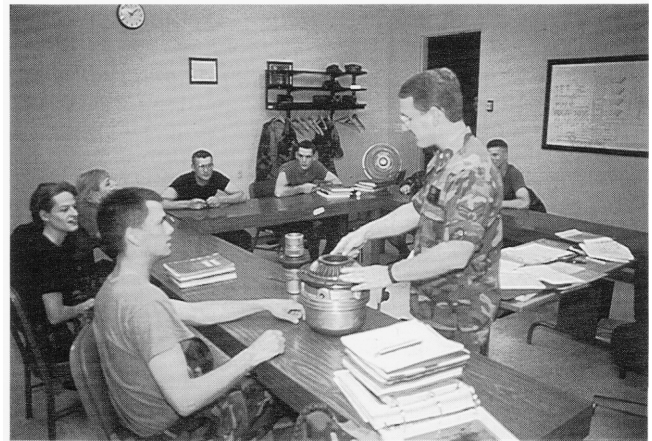
EEO 1217 Air Weapons Controller Procedures

Basic weapons applications for strategic and tactical intercept operations; includes automated systems familiarization, intercept geometry, positional simulation, and control procedures.

EEO 2101 Aerospace Control and Warning Systems Operation

Advanced techniques in employment of early warning radar systems. Integration of digital computer systems with airborne and ground radar units for detecting, identifying, and monitoring surface or airborne objects. Includes communications capabilities, system interface, and procedures required to accomplish early warning missions.

Electronics



ELT 1101 Electric Motor Principles

Theory and operation of electric motors, application of test equipment, and job safety. Connection/disconnection and operation of motors and maintenance procedures under hazardous operating conditions.

ELT 1102 Modulator Equipment

Operational theory, logic/circuit diagram analysis, preventive and corrective maintenance, and troubleshooting; includes use of general/special purpose test equipment and technical manuals.

ELT 1103 Satellite Communications Systems

Operational theory and logic/circuit diagram analysis. Includes security and use of technical manuals.

ELT 1104 Satellite Communications Maintenance

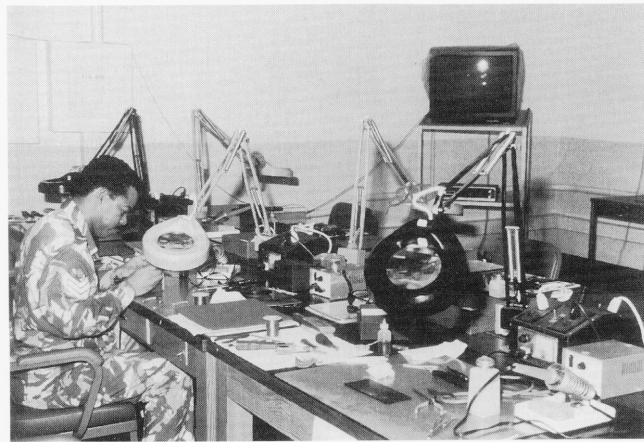
Preventive and corrective maintenance, and troubleshooting; includes use of handtools, safety procedures, general/special purpose test equipment, and technical manuals.

ELT 1105 General Maintenance Training

Introduction to maintenance concepts and practices; includes career ladder progression, security, use of Air Force publications, Air Force Office of Safety and Health and safety precautions, Air Force supply system, and maintenance management.

ELT 1106 Introduction to Digital Electronics

Numbering system conversions, digital math operations, Boolean algebra, and digital logic functions; includes truth table counter circuits, register circuits, converters, troubleshooting techniques, and use of logic probe.

**ELT 1107 Basic Soldering Connections**

Basic performance laboratory; includes soldering techniques, safety, and soldering/desoldering of components to terminal connections and printed circuit boards.

ELT 1203 Solid-State Principles

Semiconductor physics; theory of P-N junctions and multifunction devices; analysis of amplifier configurations and characteristics; and operation and feedback of audio, video, and IF/RF amplifiers.

ELT 1210 Basic Electronic Principles and Circuits

Basic electronics; electrostatics; and series, parallel, and series-parallel circuits. Changing currents, inductance, capacitance, inductive and capacitive circuits, transformers, resonance, and filters. Includes circuit analysis using electronic test equipment.

ELT 1211 Basic Electronic Circuits

Principles of triode, tetrode, pentode, multiunit, and multielement vacuum tube; introduction to P-N junctions, transistor operation, transistor amplifiers, coupling and waveshaping circuits, power supplies, sinusoidal and relaxation oscillators, handtools, and soldering techniques. Includes circuit fabrication using electronic fundamentals trainer and malfunction analysis using electronic test equipment.

ELT 1213 Modulator and Demodulator Maintenance

Schematic and logic analyses; adjustment; malfunction analysis; and repair of monitor chassis and transmit, receive, and timing circuits. Measurement using special test equipment.

ELT 1215 Cryptographic Test Equipment Application

Electronic test equipment in analysis of cryptographic equipment circuits; includes oscilloscope, multimeter, electronic multimeter, and signal generator.

ELT 1218 Electronic Cryptographic Systems Maintenance Limited

Equipment features, modes of operation, malfunction analysis, and replacement of plug-in units; includes installation, adjustment, and operation of digital encryption devices using electronic multimeter, data-pulse generator, oscilloscope, and handtools.

ELT 1219 Electronic Cryptographic Systems Maintenance Depot

Milliwatt and microwatt logic, block diagram and circuit analyses and operation of and component replacement for digital data encryption and decryption devices; includes input and output modules, power supplies, message indicators, clock start modes, synchronization circuits, special test equipment, and use of handtools for depot level repair.

ELT 1221 Tempest Problems and Solutions

Installation, inspection, and corrective maintenance procedures for cryptographic facilities to ensure suppression of undesirable emanations.

ELT 1223 Cryptographic Systems and Devices

Principles of secure communication systems. Includes use of electronic cryptographic devices; encrypted teletypewriter, data, and narrow-band and wide-band secure voice terminals; system configurations; and emanation suppression techniques.

ELT 1224 Data Transmission Techniques and Equipment

Principles of methods and media, system timing, error control systems, and patch and test facilities.

ELT 1231 Command Equipment Maintenance Limited

Operation of transmit and receive satellite communications equipment; includes fault isolation of malfunctioning printed circuit boards, power supply operation/adjustment, and safety procedures.

ELT 1232 Command Equipment Maintenance Depot

Operation, circuit, logic, and malfunction analyses, and repair of transmit, receive, and ancillary satellite communications equipment; includes principles of milliwatt logic, power supplies, data subsystem, manual vehicle test modes, and decimal and octal number conversions applicable to command equipment circuitry.

ELT 1235 Command and Telemetry Systems Maintenance

Purpose of systems and applicable safety, security, and emanation suppression procedures; includes theory of decimal/octal/binary number conversions and milliwatt logic elements used in systems and operational theory and adjustment of power supplies.

ELT 1236 Command and Telemetry Logic Control Assembly Maintenance

Logic analysis of clock, start/resume test, frequency generator clock gate, timing counter, bit time decoder, and message period timing circuits; includes theory of pulse code modulation extraction circuits and circuit card repair and malfunction analysis and location of faulty elements of logic control assembly in a self-test configuration.

ELT 1237 Command and Telemetry Reference Loop Maintenance

Operation, analysis, and physical/electrical description of telemetry transmitter, simulator, receiver, transceiver, special tester, and associated circuits connected in a test configuration with logic control assembly; includes malfunction analysis on printed circuit boards.

ELT 1238 Command and Telemetry Command Reference Loop (CRL) Maintenance

Indepth analysis of message format, ternary data system, automatic message sequence, and message counter. Includes operation and analysis of CRL transmit and receive circuits; malfunction analysis of printed circuit boards; and location of faulty elements in command transmitter, receiver, simulator, echo verifier, and associated circuits connected in a CRL test configuration with logic control assembly.

ELT 1249 Emanation Suppression Techniques

Characteristics of data-processing equipment; causes of emanations; testing techniques; equipment interfacing; emanation analysis; narrow-band and broad-band test scan and correction factors; and use of oscilloscope, spectrum analyzer, impulse generator, signal generator, and recording oscillograph.

ELT 1251 Tempest Analyst

Introduction to secure communications, message and voice processors, channel matrices, and analytical computation tools and instrumentation and analysis of recorded data and emanation suppression techniques.

ELT 1252 Cryptographic Equipment Maintenance

Integrated circuit analysis, malfunction analysis, and repair of associated special test equipment and principles of emanation suppression techniques.

ELT 1255 Vacuum Tube Principles

Operational characteristics of diodes, triodes, multigrid, and special purpose electron tubes.

ELT 1259 Introduction to Electronics

Electronic circuits and their use in various electronic systems; subject areas include power supplies, solid-state devices, digital techniques, digital mathematics, and basic troubleshooting.

ELT 1262 Metrology Measurement Principles

Tracing and verifying precision measurement equipment standards, publications forms, and supply management.

ELT 1270 Teletypewriter and Cryptographic Maintenance

Operation, circuit, and mechanical sequence analyses; adjustment, installation, malfunction analysis, and repair of encoding/decoding devices; applicable security; safety, preventive maintenance procedures; and use of handtools and general test equipment.

ELT 1280 Timing Device Maintenance

Operation, malfunction analysis, digital logic and circuit analyses, and repair of timing devices; includes theory of frequency multiplier and oscillator and use of technical manuals, handtools, and general test equipment.

ELT 1281 Digital Converter Maintenance

Logic, circuit, and malfunction analysis and repair of digital converters; includes time division multiplexer, system familiarization, and use of handtools and general test equipment.

ELT 1282 Multiplexer Maintenance

Operation, logic, and malfunction analyses and repair of multiplexer and demultiplexer equipment; includes delay compensator, synchronizer monitor logic analysis, system troubleshooting, and use of handtools and general test equipment.

ELT 1294 Aircraft Electrical System Familiarization

Fundamentals of electricity, electrical circuitry, and system components as related to aircraft maintenance specialist; includes magnetism, electrical terms, symbols, circuit construction, Ohm's law, electrical measuring equipment, lighting, and related systems. Provides practical experience in performing operational checks, servicing batteries, and locating electrical components.

ELT 1429 Cryptographic Equipment Operation

Assembly, disassembly, installation, and performance checks of operational cryptographic equipment.

ELT 1430 Power Supply Analysis and Maintenance

Block diagram, circuit, and malfunction analysis of power supplies; includes replacement of components and circuit boards.

ELT 1431 Speech Processing Circuits Maintenance

Block diagram, circuit, and malfunction analysis of cryptographic speech processing and switching circuits; includes replacement of components and circuit boards.

ELT 1432 Transmission Circuits Maintenance

Block diagram, circuit, and malfunction analysis of transmission circuits and transmit timing and preparation circuits; includes replacement of components and circuit boards.

ELT 1433 Coding and Decoding Circuits

Block diagram, circuit, and malfunction analysis of cryptographic coding and decoding circuits; includes replacement of components and circuit boards.

ELT 1434 Receiver Circuits Maintenance

Block diagram, circuit, and malfunction analysis of receiver circuits; includes replacement of components and circuit boards.

ELT 1435 Cryptographic Alarm Circuits Maintenance

Block diagram, circuit, and malfunction analysis of cryptographic alarm circuits; includes replacement of components and circuit boards.

ELT 1436 Key Generation Circuits Maintenance

Block diagram, circuit, and malfunction analysis of cryptographic key generation circuits; includes replacement of malfunctioning components and circuit boards.

ELT 1437 Systems Troubleshooting

Overall system troubleshooting; includes alignment, adjustment, and performance checks.

ELT 1438 Electronic Teletypewriter Maintenance

Operation, adjustment, logic and circuit diagram analysis, and repair or replacement of defective parts of electronic teletypewriter equipment.

ELT 1439 Narrow-Band Communication Theory

Evaluation of narrow-band (HF/VHF/UHF) telecommunication systems; includes characterization of technical capabilities/limitations, theory/principles of operation, techniques for link performance assessment, propagational path prediction and analysis, and measurement procedures for technical evaluation of worldwide defense communication system.

ELT 1447 Microwave Radio Maintenance

Principles of transmitter, receiver, and common circuits of microwave radio sets; includes alignment, trouble analysis, maintenance routines, and use of standard and special test equipment.

ELT 1450 Interface Equipment Maintenance

Operational theory, logic, and circuit diagram analysis and preventive/corrective maintenance of system interface equipment; includes troubleshooting and repair procedures.

ELT 1451 Fiber-Optic Cable Installation and Maintenance

Installation, splicing, and maintenance procedures for fiber-optic cables and associated equipment and use of specialized test equipment.

ELT 1452 Satellite Communications (SATCOM) Group Maintenance

Analysis of SATCOM terminal tracking and control systems to include maintenance, calibration, repair, and inspection of servo-electronic, monitor, and control equipment and alarm systems.

ELT 1453 Missile System Electronic Analysis

Signal flow analysis and applications to integral aerospace systems; includes loop data-flow analysis, operation of standard test equipment, troubleshooting, safety, and use of maintenance publications.

ELT 1454 Missile Systems Laboratory

Malfunction analysis of missile electrical systems through use of schematic diagrams and applicable test equipment.

ELT 1455 Communications Systems Theory

Principles of multiplexing, tunable microwave, and tropospheric scatter systems; includes performance laboratory emphasizing analysis, troubleshooting, maintenance, and repair using standard test equipment.

ELT 1456 Digital Data Communications Theory

Digital data communications systems theory; includes functional and circuit analyses of transmitters, receivers, power supplies, data reception and detection circuits, and receiver timing and detection circuits.

ELT 1457 Missile Launch Control Facility Maintenance

Operational theory, logic/circuit diagram analysis, preventive and corrective maintenance; includes general/special purpose test equipment and technical manuals.

ELT 1501 Electrical Power Generation and Distribution

Operation, troubleshooting, inspection, and maintenance principles of AC and DC power generating systems, associated equipment, and electrical power distribution systems.

ELT 1529 Power Production Equipment

Fundamental principles of power production equipment; includes operation, troubleshooting, and repair of internal combustion engines, generators, exciters, voltage regulators, launch facility power generation system, and launch facility and launch control facility power distribution system.

**ELT 1537 Uninterruptible Power Supply Principles**

Principles and characteristics of static uninterruptible power supplies emphasizing test equipment and three phase AC power fundamentals. Unit module description and operational procedures of rectifiers, chargers, input filters, inverters, and battery units.

ELT 1538 Uninterruptible Power Supply Circuits

Principles of logic and control circuits. Includes annunciator, synchronization, and digital control; rectifier leg module assembly; charge limit control; inverter control; gate timing; inverter gate firing module; alarm annunciator; AC and DC protection; reverse transfer control; static switch control; and preventive maintenance of these circuits.

ELT 1544 Security and Intrusion Detections

Principles of operation of control units, monitoring and display equipment, audible alarms, sensors (mechanical, capacitance proximity, vibration, ultrasonic motion magnetic weapons, and passive ultrasonic), and system checkout and troubleshooting.

ELT 1545 Electronic Traffic Control Systems

Theory, operation, equipment analysis, and maintenance of electronic traffic control systems.

ELT 1546 Electronic Radio Control Systems

Theory, operation, equipment analysis, and maintenance of electronic radio control systems.

ELT 1547 Energy Management and Control Systems Theory

Equipment configurations and theory/operation of energy management and control systems.

ELT 1548 Energy Management and Control Systems Maintenance

Equipment configurations, systems analysis, and maintenance of energy management and control systems.

ELT 1701 AC Circuits

Fundamentals of alternating current; includes motors, generators, meter movements, inductance, inductive reactance, capacitance, capacitive reactance, frequency spectrum, and use of oscilloscope.

ELT 1702 DC Circuits

Fundamentals of direct current; includes series, parallel, and series-parallel resistive circuits, magnetism, and relay operation.

ELT 1712 Basic Solid-State Theory

Solid-state power supplies and amplifiers. Includes P-N junctions; transistors; rectifiers; filters; limiters and clippers; and power, special, and wide-band amplifiers.

ELT 1713 Transmitter and Receiver Systems

Basic analysis of transmitter and receiver circuits, transmission lines, waveguides, antennas, cavity resonators, microwave oscillators, frequency control and automatic gain control circuits, crystal mixers, and parametric amplifiers; includes schematic interpretation and troubleshooting techniques.

ELT 1714 Solid-State Applications

Fundamental principles of solid-state applications in wave generation. Includes basic, pulsed, and blocking oscillators, multivibrators, and time-based generators.

ELT 1716 Standard Test Equipment Laboratory

Operational theory, function, and use of low-frequency generators, multimeters, electronic counters, frequency converters, audio oscillators, vacuum tube voltmeters, oscilloscopes, and differential voltmeters.

ELT 1717 Special Test Equipment Workshop

Operation and maintenance of test equipment used to maintain automatic programming and control equipment; includes schematic analysis and operation and maintenance of computer programming set and power supply.

ELT 1719 Sensing Systems Maintenance I

Functional descriptions, technical characteristics, installation and operation procedures, block diagram and circuit analyses, preventive maintenance, and troubleshooting procedures of wind and temperature dewpoint measuring equipment.

ELT 1720 Sensing Systems Maintenance II

Functional description, technical characteristics, block diagrams and circuit analyses, test equipment, troubleshooting, preventive maintenance, and operation of cloud height sets.

ELT 1721 Electrical Fundamentals

Ohm's law; series, parallel, and series-parallel circuit theory; meters and test equipment; and electrical code, terminology, and wiring diagrams.

ELT 1729 Radar Systems Troubleshooting

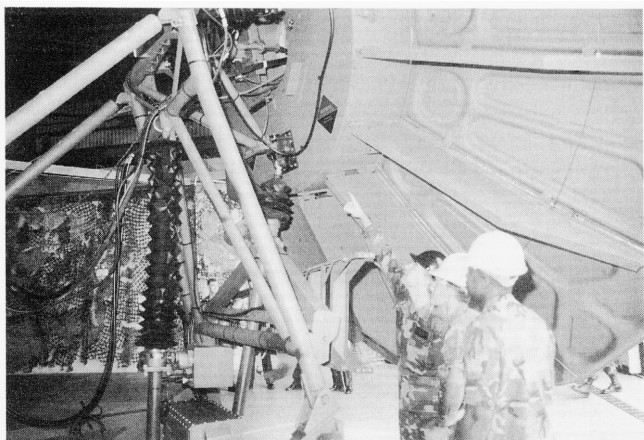
Circuit analysis of transmitters, receivers and transponders; includes use of test equipment, troubleshooting, and preventive maintenance.

ELT 1730 Radar Transmitters and Receivers

Circuit analysis of aircraft identification, friend or foe/selective identification feature system; includes principles of solid-state circuitry, coding/decoding circuitry, system timing, interrogator, responder, signal processor, and display.

ELT 1731 Surveillance Indicator Systems

Circuit analysis of plan position indicator systems; includes synchronization systems, sweep circuits, video circuits, amplifiers, and cursors.



ELT 1733 Radar System Maintenance

Circuit analysis and maintenance procedures applicable to a radar system; includes use of detailed wiring diagrams and test equipment to isolate, identify, and repair system components.

ELT 1735 Applied Missile System Operation and Maintenance

Analysis of data loops and detailed block diagrams; includes alignment, calibration, checkout, and troubleshooting of missile systems using applicable consoles and optical equipment.

ELT 1743 Phased-Array Radar Techniques

Beam steering principles and techniques necessary to perform associated maintenance on a phased-array radar; includes analyses of phase shifting networks, transmitter and receiver beam forming arrays, and signal processors.

ELT 1744 Radar System Circuits

Theory of operation and circuit analysis using logic symbols, schematics, and block diagrams; includes bench test, repair, and alignment of module boards and components.



ELT 1756 Electronics Analysis Laboratory

Analysis and maintenance of electronic monitoring and , checkout systems; includes operation of portable checkout equipment, malfunction isolation, and repair techniques.

ELT 1757 Electronic Equipment Test Standards

Operational theory, circuit analysis, and malfunction isolation procedures applicable to missile electronic test standards.

ELT 1772 Wave Generation and Shaping

Principles and applications of wave-generating and shaping devices; includes limiters, clammers, oscillators, blocking oscillators, multivibrators, time base generators, and sweep generators.

ELT 1784 Microprocessor Fundamentals

Introduction to integrated and microprocessor logic circuits; includes analysis of microcomputer systems and hardware/software considerations.

ELT 2112 Radio Equipment Theory

HF, VHF, and UHF communications equipment principles; includes performance laboratory in troubleshooting and repair of HF, VHF, and UHF mobile and portable communications equipment.

ELT 2113 Ground Radio Theory

Principles of transmitters, receivers, audio and data intercept consoles, and automatic switchboard principles as applied to ground radio systems.

ELT 2114 Radio Maintenance Laboratory

Trouble analysis and fault isolation of subunits of transmitter, receiver, and control sites.

ELT 2115 Spacecraft Acquisition Systems

Introduction to spacecraft acquisition ground station uplink/groundlink systems; includes base-band assembly, transmitter exciter and driver, power amplifier and feedhorn, parametric amplifiers and down converters, receivers, switching units, demodulators, and synthesizers.

ELT 2116 Spectrometer Maintenance/Calibration

Operation, logic analysis, repair, troubleshooting, calibration and alignment of fluid analysis spectrometer.

ELT 2117 Radiac Instruments Laboratory

Operation, circuit analysis, and troubleshooting of radiac instruments; includes practice in calibrating radiac instruments.

ELT 2118 Intermediate Solid-State Fundamentals

Fundamental principles of solid-state applications to include P-N junctions, diodes, rectifiers, transistors, zener diodes, integrated circuits, solid-state supplies and filters, power amplifiers, oscillators, multivibrators, electronic voltage regulators, logic diagrams, truth tables, and solid-state logic circuits.

ELT 2119 Line-of- Sight Radio Systems

Operation and circuit/functional analyses of line-of-sight radio terminals.

ELT 2120 Tropospheric Radio Systems

Operation and circuit/functional analyses of tropospheric scatter radio terminals.

ELT 2123 HF Receivers

Operation and circuit/functional analysis of HF receivers.

ELT 2125 Radio Transceivers

Operation and circuit/functional analyses of universal radio equipment transceivers.

ELT 2127 VHF Transceivers

Operation and circuit/functional analyses of VHF transceivers.

ELT 2128 Flight Facilities Equipment Systems

Operation and circuit/functional analyses of low-frequency beacons.

ELT 2129 Instrument Landing Systems

Operation and circuit/functional analyses of instrument landing systems; includes familiarization with ground check procedures and flight inspection recordings.

ELT 2130 Ground Omnitrange Systems

Operation and circuit/functional analyses of ground omnitrange systems.

ELT 2131 Flight Facilities Equipment Systems Maintenance Laboratory

Circuit analysis and alignment/adjustment of ground flight facilities equipment; includes systems analysis, troubleshooting, repair, cable fabrication, soldering techniques, wiring diagrams analysis, and use of special/general test equipment.

ELT 2135 Video Mapper

Theory, troubleshooting, and maintenance of modularized redundancy, remote control, and video-switching circuits; includes pretrigger delay, sine/cosine converter, map scanner, video processor, meter simulator, and failure sensing.

ELT 2136 Video Processing

Circuit analysis of normal and moving target video-processing circuits, antenna azimuth processing circuits, and radar control circuits.

ELT 2137 Satellite Ground Station Equipment

Maintenance of satellite ground station equipment; includes alignment, adjustment procedures, and troubleshooting techniques using standard and specialized test equipment.

ELT 2138 Ground Tactical Air Navigation (TACAN) Theory

Introduction to flight facilities equipment systems theory. Operation, circuit, and functional analysis of ground TACAN systems using test equipment and technical data.

ELT 2401 Radar Principles

Functional and circuit analyses of radar transmitters, receivers, and moving-target indicators. Includes modulator, high-voltage power supply; local oscillator; driver circuits; automatic tuning; master timing; RF, IF, and video circuits; and troubleshooting and repair techniques.

ELT 2408 Frequency Management Equipment Maintenance

Problems associated with high-frequency signal propagation. Includes analysis principles; frequency selection based on propagation analysis; analysis of equipment operation; detailed circuit analysis; preventive maintenance; and troubleshooting of transmitter, receiver, and spectrum analyzer components of frequency management equipment.

ELT 2421 Narrow-Band Signal Analysis

Theoretical circuit analysis and fault isolation of microprocessor controlled signal measurement receivers and data-processing equipment designed to measure spectral power density, effective radiated power, frequency, interpulse period, pulse width, and pulse time of arrival. Provides signal deinterleaving and digitized transient signal analysis.

ELT 2422 Wide-Band Signal Analysis

Theoretical circuit analysis and fault isolation of instantaneous RF-to-IF down conversion receiver, Laser-Bragg Cell Acousto-Optic video-processing detection equipment, and microprocessor controlled signal parameter measurement equipment.

ELT 2704 Meteorological Radar Systems

Operational theory and circuit analysis of meteorological radar system; includes inspection, installation, calibration, alignment, performance checks, troubleshooting and repair procedures, and use of applicable test equipment.

ELT 2709 Receivers and Transmitters

Theory of receiver systems, indicators, and servo-systems; includes saturable reactors, magnetic amplifiers, electromagnetic radiation, analysis of functional circuits of transmitters and RF systems. Also covers amplitude, frequency, and pulse modulation, waveguides, resonant cavities, and transmission lines.

ELT 2710 Test Equipment Laboratory

Practical experience in use of precision measurement equipment; includes waveform measuring devices and spectrum analysis.

ELT 2733 Logic and Circuit Analysis

Digital, logic, and circuit analysis of computer type logic circuits; includes basic circuits, adders, registers, and coder/decoders.

ELT 2739 Radar Transmitter Maintenance

Circuit analysis and repair of radar transmitters.

ELT 2740 Radar Receiver Maintenance

Circuit analysis and repair of radar receivers.

ELT 2741 Advanced Radio Frequency (RF) Systems

Advanced study of antennas and RF systems; includes circuit analysis of performance and maintenance monitors and antenna lubrication, cooling, and pressurization procedures.

ELT 2744 Radar Receiver Workshop

Advanced circuit analysis, system alignment, and repair of height finder radar receivers and display equipment.

ELT 2765 Digital Principles

Solid-state fundamentals, including principles of logic circuits, amplifiers, multivibrators, and digital voltmeters.

ELT 2775 Multiplex Switching

Logic analysis of solid-state digital switching system; includes troubleshooting and repair.

ELT 5714 Specialized Instrumentation

Operational theory and application of special instrumentation principles; includes principles of video recording, closed-circuit television, and microwave and laser systems.

ELT 5717 Radar Data Display Circuits

Operational theory, application, and maintenance of precision-timing circuits, waveshaping devices, sweep generation circuits, video-processing circuits, and cathode ray tubes; includes troubleshooting and fault analysis using multimeters, vacuum tube voltmeters, and dual trace oscilloscopes.

ELT 5725 Maintenance and Operation of Test Equipment

Analysis of waveshaping circuits, tape-reading and decoding circuits, and calibration of tape programmed test equipment.

ELT 5728 DC and Low-Frequency AC Measurement

Introductory metrology of voltage, current, and power. Includes knowledge of instrument calibration standards, precision voltage and current measurement, differential voltmeters, thermal converter meters, vacuum tube voltmeters, voltmeter calibration systems, resistance voltage dividers, ratio transformers, resistance bridges, measurement of capacitance and inductance, reactance bridges, low-frequency signal generators, function generators, and synchronization test equipment.

ELT 5729 Waveform Analysis

Oscilloscopes and oscilloscope calibrating equipment; includes analysis of waveforms. Provides practice in calibration of oscilloscopes and related equipment and stand sampling systems.

ELT 5730 Frequency Measurement

Measurement of frequency and time intervals; includes operational theory of frequency meters and distortion analyzers. Provides practice in calibration of frequency meter and phase measuring equipment.

ELT 5771 Automatic Tracking Radar Theory I

Principles of transmitters, antennas and radio frequency groups, receivers, and range and angle-tracking systems.

ELT 5800 Advanced Electromechanical Systems Laboratory

Auxiliary generator set operation/repair and applicable use of electrical wiring diagrams and engineering drawings to determine component operation, analyze circuitry, and visualize system interrelationships; includes prime mover, AC and DC generators, and controls. Practice in maintenance, inspection, trouble isolation, servicing, load banking, and adjustments.

ELT 5802 Integrated Circuit Analysis

Theory of integrated and discrete circuit characteristics; circuit analysis of logic modules and diagrams; conversions between number systems with bases 2, 8, and 10; binary coded decimals; and Boolean algebra.

ELT 5805 Advanced Missile Maintenance Laboratory

Diagram analysis, troubleshooting, alignment, calibration, and inspection of missile systems. Extensive practice provided in circuit analysis using detailed wiring diagrams and test equipment to isolate, identify, and correct malfunctions at component level.

ELT 5817 Intermediate Range Instrumentation Group (IRIG) Timing System

Functional analysis of IRIG timing; block diagram analysis of cesium standard and digital divider; and detailed logic and schematic analyses of time code generator, rehearsal

time generator, display test generator, timing system control unit, timing selector, timing terminal, total seconds translator, and time-display distributor.

ELT 5820 Tape-Recorder Maintenance

Detailed circuit analysis of servo, record, and reproducing circuits; includes direct and FM recording methods and video and FM record and reproducing modes.

ELT 5824 Telemetry Tracking and Command System

Antenna structure, circuit analysis of servo-control equipment, antenna positioning, encoding subsystem, receiver antenna, transmitter console, and modes of operation.

ELT 6719 Airborne Communication Systems Maintenance Laboratory

Alignment, adjustment, troubleshooting, and maintenance of airborne communications equipment; utilizes special and general purpose test equipment.

ELT 6723 High-Reliability Soldering and Connections

Repair of miniature and microminiature electronic circuits and printed circuit boards; includes soldering of components and modules to printed circuit boards and to various terminals used in electronics equipment, conformal coating removal, and replacement of solid-state components.

ELT 6778 Communications Control Console/Landline Selector Control

Communications control console group and landline selector control group maintenance; includes equipment operation, circuit analysis, alignments and adjustments, and fault isolation.

ELT 6779 UHF Radio Communications

Analysis of UHF multichannel radio transceivers; includes performance testing, troubleshooting, alignments, and adjustments using associated test equipment.



ELT 6783 Communications Equipment Testing and Data Analysis

Intensive performance laboratory using a variety of test equipment for use in data validation, systems analysis, and technical evaluation required in maintenance management and upgrading of worldwide defense communications system.

ELT 6794 Command Post Maintenance

Analysis of specialized modems, alarms, and command synchronizers for satellite communications command operations; includes theory of operation, block diagram analysis, and operation and maintenance of these various systems.

ELT 7718 Low-Level Teletypewriter Equipment Maintenance

Introduction to low-level keying and solid-state devices; includes low-level circuit analysis and circuit board repair.

ELT 7724 Analysis of Functional Circuits of Transmitters

Amplitude and frequency modulation; includes theory of transmission lines, waveguides, resonant cavities, antennas, and pulse modulation.

ELT 7725 Analysis of Functional Circuits of Receiver Systems

Receiver circuit analysis; includes theory of mixers, local oscillators, receiver amplifiers, detectors, receiver control circuits, and single sideband radio techniques.

ELT 7737 Radio (Air and Ground 50KHz)

VHF/UHF communications equipment principles; includes troubleshooting and repair of VHF/UHF communications equipment.

ELT 7750 Ground Navigational Maintenance

Operation and circuit analysis of ground-based timer-synchronizer, monitor, receiver, and transmitter units; includes preventive maintenance and troubleshooting of systems using technical data.

ELT 7755 Airport Surveillance Radar Systems

Functional and circuit analyses of airport surveillance radar sets; includes transmitter, synchronization, radio frequency system, receiver system, and indicating system circuits.

ELT 7756 Precision Approach Radar Systems

Functional and circuit analyses of precision approach radar systems; includes transmitter, receiver, indicator, synchronization, and remoting circuits.

ELT 7759 System Timing, Transmitter/Receiver

Circuit analysis, alignment, and troubleshooting of transmitter and receiver master timing system; includes digital techniques.

ELT 7762 Digital Selective Identification

Functional and logic diagram analyses of digitized selective identification feature system; includes encoder/decoder and fault isolation.

ELT 7767 Radar Identification Equipment

Functional and circuit analyses of identification equipment (air traffic control and friend or foe); includes analysis of transmitter, receiver, control circuits, power supply, and system maintenance.

ELT 7780 Runway Visual Range Computer Systems

Functional description, block diagram, and circuit analyses, use of test equipment, preventive maintenance, adjustments, and troubleshooting.

Emergency Medical Technology

EMT 2301 Introduction to Emergency Medical Technology

Medical terminology, basic pharmacy, therapeutics, medical laboratory, and post-mortem care. Techniques in lecturing on allied health subjects.

EMT 2302 Management of Common Medical Disorders

Care of acute dental, respiratory, eye, ear, nose, throat, genitourinary, integumentary, cardiovascular, gastro-intestinal, neurological, and psychiatric disorders.

EMT 2303 Emergency Procedures and Examinations

Emergency treatment of fractures; dislocations; and head, chest, abdominal and thermal injuries; cricothyroidotomy; intravenous therapy; minor surgery; temporary dental fillings; gastric lavage and gavage; and emergency childbirth.

EMT 2304 Public Health

Water purification, insect and rodent control, sewage and water disposal, rabies control, occupational health, and health/sanitation procedures.

EMT 2305 Clinical Practicum

Hospital care of traumatic injuries, temporary dental care, taking patient history, physical examinations, diagnoses of specific diseases, use of laboratory tests to support diagnoses, supervision of medical care and medications, and skills required in remote duty areas.

EMT 2306 Emergency Service Management

Introduction to emergency service management. Provision of health care in emergency services by recognizing life-threatening conditions and providing advanced life support techniques, diagnosis and treatment of broad spectrum of conditions commonly encountered in an emergency service. Includes utilization of available resources to ensure optimal care for nonemergency conditions and management and operations of an emergency service.

EMT 2313 Advanced Emergency Medical Care and Pararescue

Procedures and techniques of paramedical care applied in simulated medical/surgical emergencies.

EMT 2314 Seminar in Emergency Medical Care

Reinforcement and expansion of previous basic medical instruction and experience by means of lectures, demonstrations, discussions, and solution of practical laboratory problems.

EMT 2316 First Aid and Self-Help

Identification and treatment of hemorrhage; shock; fracture and dislocations; burns; heat disorders; hypothermia; and chemical and botanical poisons and snake, insect, and marine life bites under field conditions. Application of drug therapy, artificial respiration, and heart massage.

Environmental Medicine

ENM 1301 Environmental Medicine Office Procedures

Principles of office and records management, equipment and supply procedures, communicative methods, and public relations.

ENM 1303 Epidemiology

Terminology, detection, and control of communicable diseases.

ENM 1305 Occupational Medicine/Industrial Hygiene

Measurement of occupational health hazards and use of personal equipment to minimize exposure to radiation, respiratory, and hearing hazards.

ENM 1306 Fundamentals of Hearing Conservation

Measurement of auditory risk, audiometry monitoring, selection and issue of personal ear protection devices, methods of monitoring noise-exposed personnel, and management of hearing conservation program.

ENM 1307 Food Preservation

Food preservation and storage techniques-refrigeration, freezing, packaging, curing, irradiation, fermentation, and use of additives.

ENM 1308 Evaluation of Food-Handling Training and Sanitation

Administration of programs that are designed to measure training of food-handling personnel and compliance of personnel and food-handling facilities with sanitation standards.

ENM 1309 Food Inspection Procedures

Inspection and analysis of various food commodities to ensure wholesomeness.

ENM 1310 Medical Entomology

Theory of entomology and its importance in public health and transmission of diseases.

ENM 1311 Operational Entomology

Epidemics, vector bionomics, and vector borne diseases as they affect military; surveillance, prevention, and control of vector borne diseases; and information, intelligence, and field operations.

ENM 2302 Advanced Epidemiology

Investigation, control, and prevention of communicable diseases; includes medical entomology, maintenance of public health standards, and food safety.

ENM 2303 Management of Occupational/Disaster Medicine Programs

Administration of occupational health programs, office activities, and environmental health personnel; institution of training programs; and functions of environmental health personnel in disasters.

Electric Power Production

EPP 1100 Airfield Lighting Systems

Basic airfield lighting system configurations to include control systems, beacon lights, lighting fixtures, regulators, and transformers. Condenser discharge cable repair, troubleshooting, and maintenance.

EPP 1101 Teledyne Power System Principles

Operation and circuit principles of uninterruptable Teledyne Net Power System. Includes input and output transformers and filters, rectifiers, inverters, voltage regulators, and power supply control logic. Diagnostic circuit analysis of electronic control card modules and interpretation of schematic diagrams.

EPP 1102 Teledyne Power System Maintenance and Alignment

Electronic circuit alignment procedures on card modules. Diagnosis of system interruptions and preventive maintenance, troubleshooting, system alignment, and calibration.

EPP 1502 Engine Systems and Associated Equipment

Operation and maintenance of conventional, gas turbine, and diesel engine systems, including cooling, starting, lubrication, intake, exhaust, governor, and fuel.

EPP 1503 Equipment and Pole Climbing

Pole-climbing techniques using hot line tools and protective equipment, crossarm installation and removal, pole step installation, and civil engineering management procedures to include operations, communication security, general safety practices, and pole top rescue techniques.

EPP 1504 Construction of Overhead Electrical Distribution Systems

Electrical prints and staking sheets for pole locations, pole framing, setting, and pole erection techniques using anchors and guys to include insulated boom dielectric testing, pole grounding, inspection of substation fences, and vegetation control. Installation of lighting systems, distribution transformers, and service drops using safe clearance procedures and conductor support devices; maintenance on electrical switchgear and equipment, emergency transformer connections; conductor splices, deenergized conductor transfers; and line and aerial bucket operation and maintenance.

EPP 1505 Underground Distribution Systems Maintenance

Maintenance and inspection of underground electrical distribution systems and manhole equipment to include fabricating and testing inline splices, installation of direct burial cable, replacement of underground cable, tape termination techniques, and termination point inspection and testing.

EPP 1506 Operation and Maintenance of Mobile Generator Sets

Generator set wire diagrams and automatic start, power transfer, and no-break power systems. Includes troubleshooting techniques and preoperation, single unit operation, and postoperation procedures.

EPP 1507 Generator Set Operation and Aircraft Arresting Barriers

Operating characteristics and configurations of aircraft arresting systems, generator set associated equipment, and powerplant generator operation. Problem analysis and diesel engine tests and maintenance.

EPP 1508 Wiring Methods

Wiring diagrams, electrical terms and symbols, conduit application, and bending techniques. Branch circuits construction, switch and outlet installation, and troubleshooting techniques using test equipment and safety procedures per national electrical code guidelines.

EPP 1509 Electrical Special Purpose Systems

Maintenance, troubleshooting, and repair of transformers, voltage regulators, battery banks and chargers, and emergency lighting systems; includes dining hall and domestic appliances.

EPP 1510 AC Power Generating Systems and Operation Principles

Operation, maintenance, and troubleshooting of AC power generation systems and components to include switchgear instruments, circuits, and their protective devices.

EPP 2100 High-Voltage Cable Testing and Splicing

Cable construction, splicing procedures, requirements for various underground systems, causes of underground cable failure and related preventive procedures, tape and hybrid splices, lead transition, tape termination, and separable insulated connectors.

EPP 2501 Generator Set, Switchgear, and Governor Operation and Maintenance

Operation, care, and maintenance of generator sets, equipment and components, gas turbine and diesel generators, hydraulic and electric governors, and automatic start and transfer switchgear.

EPP 2503 Transportable Distribution Systems

Setup, maintenance, troubleshooting, and repair procedures for electrical distribution systems and secondary distribution centers under field conditions; includes use of electrical plant schematics, test equipment, and safety practices.

EPP 2504 Electrical Distribution Systems

Maintenance of hot line tools and advanced troubleshooting procedures for electrical distribution systems. Includes voltage regulator maintenance with application of electrical theories; replacement of single-phase lines, three-phase running corners, vertical construction, insulators on horizontal construction, crossarms using auxiliary sidearms, and crossarms and poles on dead ends; and changing straight line crossarm to double dead end and double crossarms on angles.

EPP 2505 Advanced Motors and Controls

Operational characteristics and troubleshooting of electric motors, frequency converters, transformers, and grounding systems. Includes electronic components, line and wiring diagrams, and motor accessories.

Explosives Handling and Disposal

EXP 1705 Nuclear Explosive Weapons Maintenance

Application of safety practices pertaining to weapons maintenance, storage, handling, assembly, inspection, and preparation for shipment.

EXP 1706 Explosive Ordnance Disposal (EOD) Orientation

Munitions for identification, uses, and effects of chemical agents; EOD publications, duties, and specialized tools; and demolition procedures.

EXP 1707 Introduction to Munitions Supply

Munitions management to include item accounting procedures, file maintenance, publications, nuclear ordnance commodity managed manual accounting, personnel reliability programs, and operational security.

EXP 2601 Explosives Accounting Procedures

Analysis of explosive item supply systems; includes determining human reliability, evaluation of security handling, identification of records and forms, issue and turn-in, maintenance support, receiving, shipping, storage, inventory, stock replenishment, and application of explosives safety quality assurance and fire prevention.